AQC0654

Nanopublication — Computational Image Analysis - AQC0654

by Arnaud Quercy · D Major - Research on Harmony - Variation 3 · 2024

Claim 1: Computational Image Analysis - AQC0654

> Computational image analysis [3] of artwork D Major [1] - Research on Harmony - Variation 3 (AQC0654) [2] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2026-02-04.

CONTEXT

Analysis performed according to MMIDS-CMP-2025 [3] includes four metric categories: (1) Color distribution via k-means (10 colors), (2) Texture analysis using Haralick features, (3) Brightness and contrast measurements, (4) Spatial pattern characterization. Source image [5]: 2495x3327 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color	Hex	%	Family	Name
1		D7CBB7	17.7	yellow-orange	silver
2		E8DFCD	12.4	yellow-orange	gainsboro
3		E2A54B	11.8	yellow-orange	sandybrown
4		130D0C	10.7	black	black
5		879388	10.7	yellow-green	gray
6		242631	9.7	violet	very dark gray
7		697B72	9.0	yellow-green	dimgray
8		C2B5A0	8.8	yellow-orange	tan
9		6B4923	4.9	orange	russet
10		B2802B	4.3	yellow-orange	darkgoldenrod
11		666146	0.3	yellow	dark brown [Accent]

Color Families:

Family	%
yellow-orange	55.0
yellow-green	19.7
black	10.7
violet	9.7
orange	4.9
yellow	0.3

Accent Colors:

Hex	Family	Name	Chroma
666146	yellow	dark brown	16.3

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.275
Mean Local Roughness	0.031
Roughness Uniformity	0.028
Edge Density	0.171
Mean Gradient Magnitude	0.246
Gradient Variance	0.098
Gradient Smoothness	0.0
Directional Coherence	0.018
Pattern Complexity	0.114
Pattern Repetition	1.0
Detail Frequency Ratio	0.637
Spatial Variation	0.143
Texture Consistency	0.656

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.555
Brightness Variance	0.275
Brightness Uniformity	0.505
Brightness Skewness	-0.614
Brightness Entropy	7.666
Rms Contrast	0.275
Michelson Contrast	1.0
Weber Contrast	0.881
Mean Local Contrast	0.035
Contrast Uniformity	0.14
Dynamic Range	1.0
Effective Dynamic Range	0.831
Shadow Percentage	23.315
Midtone Percentage	31.449
Highlight Percentage	45.236
Shadow Clipping	0.045
Highlight Clipping	0.011
Tonal Balance	0.333
Fine Contrast	0.017
Medium Contrast	0.043
Coarse Contrast	0.06
Multiscale Contrast Ratio	0.289
Edge Contrast	0.246
Contrast Clustering	0.344

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.73
Color Clustering	0.763
Color Transition Smoothness	0.375
Transition Uniformity	0.325

Metric	Value
Sharp Transition Ratio	0.1
Transition Directionality	0.02
Mean Saturation	0.316
Saturation Variance	0.066
Low Saturation Ratio	0.638
Medium Saturation Ratio	0.228
High Saturation Ratio	0.134
Saturation Clustering	0.997
Hue Concentration	0.604
Complementary Balance	0.098
Analogous Dominance	0.788
Temperature Bias	0.617

Methodology

This analysis employs standardized computational methods for objective image characterization. Color extraction uses k-means clustering algorithm. Texture analysis applies Haralick feature extraction. Brightness metrics include mean, variance, and distribution analysis. Spatial patterns are characterized through coherence and clustering measurements. All methods are deterministic and reproducible. Analysis performed by Multimodal Institute's computational imaging systems.

REFERENCES

[1] Arnaud Quercy (2024). D Major - Research on Harmony - Variation 3 — Catalog raisonné. https://arnaudquercy.art/en/catalogue-raisonne/AQC0654.html

[2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2024/01/d-major-research-on-harmony-variation-3_7ak.html

[3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html

EPISTEMIC PROFILE

Claim type	computational analysis
Voice	third person
Epistemic status	empirical measurement
Methodology	computational analysis
Certainty	high

CHECKSUM (SHA-256)

141d5340a630116a18d7ac2ef7f9556b7fe9c4a9cb28fbf-b0b9f9e4d2c25e853

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